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EXAMINER
CHANG, SUNRAY

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-27* is/are pending in the application.

    4a) Of the above claim(s) *16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 17-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *30060623*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

Examiner's Detailed Office Action

1.   This Office Action is responsive to communication, filed on June 23rd, 2006;

Claims 1 – 15 and 17 – 27 are presented for examination;

Claim 16 has been cancelled in the preliminary amendment filed on June 23rd, 2006.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted to disclose 37 C.F.R. 1.56 all

pertinent information and material pertaining to the patentability of applicant's claimed

invention, on June 23rd, 2006 has been considered by the examiner.

Drawings

3.   The formal drawings submitted have been reviewed by the Office of Initial Patent

Examination (OIPE) and/or the USPTO Office of Draftperson's Patent Drawings Review.

Priority

4.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been received on June 23rd, 2006.

Claim Objections

5.   Claim 15 is given objection under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

6.   Claim 27 is given objection for a typo as claimed in claim 27: "in a an industrial facility", a correction is necessary.

Claim Rejections - 35 USC § 112

7.   **Claims 5**, 7 and **10 – 12** are rejected under **35 U.S.C. 112, second paragraph**, as failing to set forth the subject matter which applicant(s) regard as their invention.

As to claim(s) 5 and 7, applicants recite the limitations "input" and "output" in claims 5 and 7. There is insufficient antecedent basis for these limitations in the claims. The "input" and "output" in claims 5 and 7 are not previously cited or defined in the independent claim 1. According to specification, (publication 2007/0276514), a hand-held device [0111], safety device [0106] or pressure transmitter [0097], a touch screen [0047], a mouse [0046], etc. or even power supply of the computer, each has its corresponding inputs / outputs. The applicants are suggested to amend the independent claim 1 based on the "input means" as claimed in other independent claims, for example, claim 22.

As to claim(s) 10, applicants recite the limitation "path" in claim 10. There is insufficient antecedent basis for this limitation in the claim. The, term, "path", in claim 10, has not been previously cited or defined in the independent claim 1.

As to claim(s) 11, applicants recite the limitation "table" in claim 11. There is insufficient antecedent basis for this limitation in the claim. The, term, "table", in claim 11, has not been previously cited or defined in the independent claim 1.

As to claim(s) 12, applicants recite the limitation "representation" in claim 12. There is insufficient antecedent basis for this limitation in the claim. The, term, "representation", in claim 12, has not been previously cited or defined in the independent claim 1.

8.   **Claims 17 – 20** are rejected under **35 U.S.C. 112, second paragraph**, as failing to set forth the subject matter which applicant(s) regard as their invention.

The term "register" in claim(s) 17 – 20 is vague and indefinite. Because the term "register" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The explanation in specification (U.S. P.G. Pub. 2007/0276514) for "register" recites:

"Selections made by a selection means embodied as a mark or icon 45, in the grid/matrix in the display 44, corresponding to means or in other forms are registered with the microprocessor" [publication, [0101]]

Which is still not clearly defined what the term, "register", stands for. Based on

examiner's understanding in claims 1 – 13, the term, "register", has been interpreted to be

"creating a representation" as claimed in claims 1 – 13 hereinafter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

9.   **Claim(s) 1 – 6, 8 – 15, 17 – 22** and **24 – 27** is/are rejected under 35 U.S.C. 102(b) as

being anticipated by Bob Spriggs et al. (U.S. Patent No. 6,421,571, and referred to as **Spriggs**

hereinafter).

Regarding **claim(s) 1**, **Spriggs** discloses:

- A method in an industrial safety system for controlling a process or equipment, [an industrial

  plant asset management system … for providing an environment for development and

  deployment of visual models for monitoring plant assets, Abstract]

- the industrial safety system comprises components with safety devices, [a variety of device

  dependent data collector modules with associated signal conditioning and processing devices

  for providing an environment for development and deployment of visual models, for

  monitoring plant assets, Abstract; for protecting and managing industrial plant assets

  including a multifarious grouping of machinery and processes, Col. 1, lines 6 – 11; …

  including data acquisition devices, col. 17, lines 11 – 18] wherein

- the safety system enables signals to be generated as a result of an event or alarm, [basis

  maintenance activities on specific alarms, machinery fault identification, col. 4, lines 31 – 37;

  a display device coupled to said processing device for providing a graphical user interface to

  a user in response to receipt of signals from said processing device, col. 32, lines 32 – 35] the

  method comprising:

- creating an automated link between the event or alarm and an action to be taken upon receipt

  of said event or alarm signal due to the event, [fig. 13, a listing of all events associated with

  the system 10 for the specified time frame can be quickly accessed. Events include alarms,

  diagnostic statuses, asset events (such as start up shutdown), and configuration events. As

  with all other system 10 displays, the views are linked, col. 20, line 66 – col. 21, line 17; the

  examiner further explains, the "log" in the event manager as shown in **Spriggs** reference, fig.

  13, is a link and is created when alarm received; the 3rd event as listed in the fig. 13 has a

  menu (list) of "actions" (266) to be taken] and

- generating a control signal to initiate the action. [Event Manager 132 further allows the user

  to launch plots via menu 266 from the event manager view 262 to present supporting

  evidence for any given event, col. 20, lines 42 – 45]

      Regarding **claim(s) 2**, **Spriggs** discloses the method according to claim 1, further

comprising:

- configuring a representation of a safety device, [model the actual instruments installed in an

  enterprise and behaves as a graphical view of the instrument tree view 170, col. 16, lines 65 –

  67; actual wiring of that instrument … including data acquisition device, col. 17, lines 7 – 18;

see further paragraphs under "Instrument View Object and Instrument View", col. 16, line 59

– col. 17, line 17] and

- configuring a representation of said event or alarm. [a color for each severity level, col. 11,

  line 4]

Regarding **claim(s) 3**, **Spriggs** discloses the method according to claim 1, further

comprising:

- creating a schematic representation of the safety system comprising the components and the

  safety devices, [actual wiring of that instrument … including data acquisition device, col. 17,

  lines 7 – 18] and

- creating a representation of each component. [fig. 7 – 14]

Regarding **claim(s) 4**, **Spriggs** discloses the method according to claim 1, further

comprising:

- creating a representation of each safety device. [allows the user to see status, alarms, and

  configuration referenced from the instrumentation system including data acquisition devices

  60, col. 17, lines 11 – 14]

Regarding **claim(s) 5**, **Spriggs** discloses the method according to claim 1, further

comprising:

- creating a representation of each input, and creating a representation of each output. [actual

  wiring, col. 17, lines 5 – 10]

Regarding **claim(s) 6**, **Spriggs** discloses the method according to claim 1, further

comprising:

▪   creating a representation of each action, [Action Manager Module, col. 27, lines 60 – 64] and

▪   creating a representation of each event. [a color for each severity level, col. 11, line 4]

Regarding **claim(s) 8**, **Spriggs** discloses the method according to claim 1, further

comprising:

▪   displaying the link by means of a representation in a human machine interface. [fig. 13]

Regarding **claim(s) 9**, **Spriggs** discloses the method according to claim 1, further

comprising:

▪   displaying the link by means of a representation in a graphical user interface on a screen. [fig.

13; therein since "link" is a GUI as defined in specification, **Spriggs** reference discloses

several windows including pull down menu when action on the selected event in a table of a

window (GUI)]

Regarding **claim(s) 10**, **Spriggs** discloses the method according to claim 1, wherein

▪   each path is represented by a table. [fig. 13; the examiner further explains, there is no "path"

claimed in claim 1, a 112(2) rejection has been cited above for this reason; therefore, **Spriggs**

discloses a table which includes plurality of events, actions and options as disclosed in fig.

13]

Regarding **claim(s) 11**, **Spriggs** discloses the method according to claim 1, wherein

- each table is displayed in a graphical user interface on a screen. [fig. 13; the examiner further

  explains, there is no "table" claimed in claim 1, a 112(2) rejection has been cited above for

  this reason; therefore, **Spriggs** discloses a table which includes plurality of events, actions

  and options as disclosed in fig. 13]

Regarding **claim(s) 12**, **Spriggs** discloses the method according to claim 1, wherein

- relations between the representations are displayed in the form of a matrix. [the table, fig. 13]

Regarding **claim(s) 13**, **Spriggs** discloses

- a computerized industrial system, comprising: means to perform a method in an industrial

  safety system for controlling a process or equipment, according to claim 1. [a data acquisition

  module, a display module, a database module, and utility modules. These modules can reside

  on a single computer, col. 2, lines 39 – 44]

Regarding **claim(s) 14** and **15**, **Spriggs** discloses

- A computer program product, comprising a computer readable medium; and programming

  instructions recorded on the computer readable medium to control a computer or a computer

  process to make it perform a method in an industrial safety system for controlling a process

  or equipment [a data acquisition module, a display module, a database module, and utility

  modules. These modules can reside on a single computer, col. 2, lines 39 – 44] including

- creating an automated link between the event or alarm and an action to be taken upon receipt

  of said event or alarm signal due to the event, and generating a control signal to initiate the

  action. [fig. 13, a <u>listing of all events</u> associated with the system 10 for the specified time

  frame can <u>be quickly accessed</u>. Events include alarms, diagnostic statuses, asset events (such

  as start up shutdown), and configuration events. As with all other system 10 displays, the

  <u>views are linked</u>, col. 20, line 66 – col. 21, line 17; the examiner further explains, the "log" in

  the event manager as shown in **Spriggs** reference, fig. 13, is a link and is created when alarm

  received; the 3rd event as listed in the fig. 13 has a menu (list) of "actions" (266) to be taken]

  and

- generating a control signal to initiate the action. [Event Manager 132 further allows the user

  to <u>launch plots via menu 266</u> from the event manager view 262 to present supporting

  evidence for any given event, col. 20, lines 42 – 45]

  Regarding **claim(s) 17**, **Spriggs** discloses

- A graphical user interface for controlling a process or equipment in an industrial safety

  system, the industrial safety system comprising components with safety devices, that enables

  signals to be generated as a result of an event or alarm, the graphical user interface [an

  industrial plant asset management system … for providing an environment for development

  and deployment of visual models for monitoring plant assets, Abstract; a variety of device

  dependent data collector modules with associated signal conditioning and processing devices

  for providing an environment for development and deployment of visual models, for

  monitoring plant assets, Abstract; for protecting and managing industrial plant assets

including a multifarious grouping of machinery and processes, Col. 1, lines 6 – 11; …

including data acquisition devices, col. 17, lines 11 – 18] comprising:

- display means to display a representation of an item, [fig. 13; all "item" in the windows]

- display means to display relations between the items, [fig. 13; for example, location] and

- input means to configure a representation said items and relations. [fig. 13; the displayed

  table is a representation.

Regarding **claim(s) 18**, **Spriggs** discloses the graphical user interface according to claim

17, further comprising:

- input means to register an alarm signal or an event, [a color for each severity level, col. 11,

  line 4]

- input means to register an input to a safety device. [data can be received from and transmitted

  to each of the data acquisition devices 60 in the form of sensed data (data received), and

  configuration information and commands (data transmitted), col. 8, lines 31 – 34]

Regarding **claim(s) 19**, **Spriggs** discloses the graphical user interface according to claim

17, further comprising:

- display means to register an input signal, and display means to register an output signal. [fig.

  13; alarm events are logged into the event list 85 and can be configured to drive other user-

  defined actions … each of the alarm events can be used to drive different actions, col. 11,

  lines 13 – 18]

Regarding **claim(s) 20**, **Spriggs** discloses the graphical user interface according to claim

17, further comprising:

■   input means to register a path. [left mouse button 108 is generally used for, inter alia,

selecting, dragging and opening an object when actuated or clicked on that object, col. 8,

lines 3 – 6; a listing of all events associated with the system 10 for the specified time frame

can be quickly accessed. Events include alarms, diagnostic statuses, asset events (such as

start up shutdown), and configuration events, col. 21, lines 2 – 6]

Regarding **claim(s) 21**, **Spriggs** discloses the graphical user interface according to claim

17, further comprising:

■   display means for creating a matrix. [the table, fig. 13]

Regarding **claim(s) 22**, **Spriggs** discloses

■   A system for controlling a process or equipment in an industrial safety system, the industrial

safety system comprises components with inputs and safety devices enabling signals to be

generated as a result of an event or alarm, [an industrial plant asset management system …

for providing an environment for development and deployment of visual models for

monitoring plant assets, Abstract; a variety of device dependent data collector modules with

associated signal conditioning and processing devices for providing an environment for

development and deployment of visual models, for monitoring plant assets, Abstract; for

protecting and managing industrial plant assets including a multifarious grouping of

machinery and processes, Col. 1, lines 6 – 11; … including data acquisition devices, col. 17,

lines 11 – 18; actual wiring, col. 17, lines 5 – 10] the system comprising:

- components from any of the list of: a computer such as a tablet personal computer PC, a

  computer program and a graphical user interface. [single computer, col. 2, lines 39 – 44]

Regarding **claim(s) 24**, **Spriggs** discloses the system according to claim 22, comprising:

- means to perform a method in an industrial safety system for controlling a process or

  equipment, according to claim 1. [an industrial plant asset management system, col. 1, lines 6

  – 11]

Regarding **claim(s) 25**, **Spriggs** discloses

- a database, comprising: information to be used in a method in an industrial safety system for

  controlling a process or equipment, according to claim 1. [a common database structure, col.

  1, lines 6 – 11]

Regarding **claim(s) 26**, **Spriggs** discloses

- a website, comprising: means to perform a method in an industrial safety system for

  controlling a process or equipment, according to claim 1. [client server architecture, col. 3,

  lines 25 – 30; the examiner further explains, based on specification, [0118], the "website"

  can be simply a client/server means to perform the method]

Regarding **claim(s) 27**, **Spriggs** discloses

- A data communication signal for controlling at least one component in an industrial facility

  for an industrial process, the data communication signal comprising: safety information for

  controlling a process or equipment in a industrial safety system such as a signals generated as

  a result of an event or alarm. [an industrial plant asset management system ... for providing

  an environment for development and deployment of visual models for monitoring plant

  assets, Abstract; a variety of device dependent data collector modules with associated signal

  conditioning and processing devices for providing an environment for development and

  deployment of visual models, for monitoring plant assets, Abstract; for protecting and

  managing industrial plant assets including a multifarious grouping of machinery and

  processes, Col. 1, lines 6 – 11; ... including data acquisition devices, col. 17, lines 11 – 18;

  actual wiring, col. 17, lines 5 – 10]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459
(1966), that are applied for establishing a background for determining obviousness under 35
U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness
   or nonobviousness.

10.   **Claim(s) 7 is/are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Spriggs**

and in view of Keith Eldridge et al. (U.S. Patent No. 7,272,815, and referred to as **Eldridge**

hereinafter).

        Regarding claim(s) 7,

        Spriggs teaches the method in an industrial safety system for controlling a process or

equipment, [an industrial plant asset management system … for providing an environment for

development and deployment of visual models for monitoring plant assets, Abstract]

        Spriggs does not teach the link with all the paths together: "configuring one or more

links comprising a link between the event and the input, comprising a path between the input and

the safety device, a path between the safety device and output, and a path between the output and

the action";

        Eldridge teaches configuring one or more links comprising a link between the event and

the input, comprising a path between the input and the safety device, a path between the safety

device and output, and a path between the output and the action [real-input, real-output, bad

alarm, fig. 12, parameter setting, fig. 11, see more detail in col. 25, lines 45 – 63, further see fig.

120 and col. 139, line 29 – col. 140, line 10 for corresponding descriptions] for the purpose of

providing configuring process, environmental, industrial and other control systems generate

and/or utilize models representing configurations of control systems and/or the systems

controlled by them [Abstract].

        It would have been obvious to a person of ordinary skill in the art at the time of

applicant's invention to modify the teaching of **Spriggs** to include "configuring one or more

links comprising a link between the event and the input, comprising a path between the input and the safety device, a path between the safety device and output, and a path between the output and the action", for the purpose of providing configuring process, environmental, industrial and other control systems generate and/or utilize models representing configurations of control systems and/or the systems controlled by them [Abstract].

11.   **Claim(s) 23 is/are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Spriggs** and in view of David A. Levine et al. (U.S. Patent No. 6,233,566, and referred to as **Levine** hereinafter).

Spriggs teaches a system for controlling a process or equipment, [an industrial plant asset management system … for providing an environment for development and deployment of visual models for monitoring plant assets, Abstract]

Spriggs does not teach a hand-held device displaying said graphical user interface, and input means to said hand-held device;

Levine teaches a hand-held device displaying said graphical user interface, and input means to said hand-held device [Such notification can be made via electronic mail, any type of digital/wireless communications (e.g., pager, telephone, cellular telephone, personal digital assistant, col. 15, lines 44 – 47, fig. 7 – 14, 18 and 19], for the purpose of sending notifications via electronic mail, pager, telephone, cellular phone, or hand-held computer [col. 22, lines 3 – 4].

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Spriggs** to include "a hand-held device displaying said graphical user interface, and input means to said hand-held device", for the

purpose of sending notifications via electronic mail, pager, telephone, cellular phone, or hand-

held computer [col. 22, lines 3 – 4].

Correspondence Information

12.   Any inquires concerning this communication or earlier communications from the

examiner should be directed to Sunray Chang, who may be reached Monday through Friday,

between 6:00 a.m. and 3:00 p.m. EST. or via telephone at (571) 272-3682 or facsimile

transmission (571) 273-3682 or email sunray.chang@uspto.gov.

          If there is a need to send an Official facsimile transmission, please send it through

facsimile number (571) 273-8300.

          If attempts to reach the examiner are unsuccessful in the regular office hour, the

Examiner's Supervisor, Albert Decady, may be reached at (571) 272-3819.

          Hand-delivered responses should be delivered to the Receptionist @ (Customer Service
Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor
of the south side of the Randolph Building.
          Finally, information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Moreover, status information for
published applications may be obtained from either Private PAIR or Public PAIR. Status
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toll-free @ 1-866-217-9197.

Sunray Chang
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U.S. Patent & Trademark Office

/Albert DeCady/
Supervisory Patent Examiner, Art Unit 2121
April 7, 2009